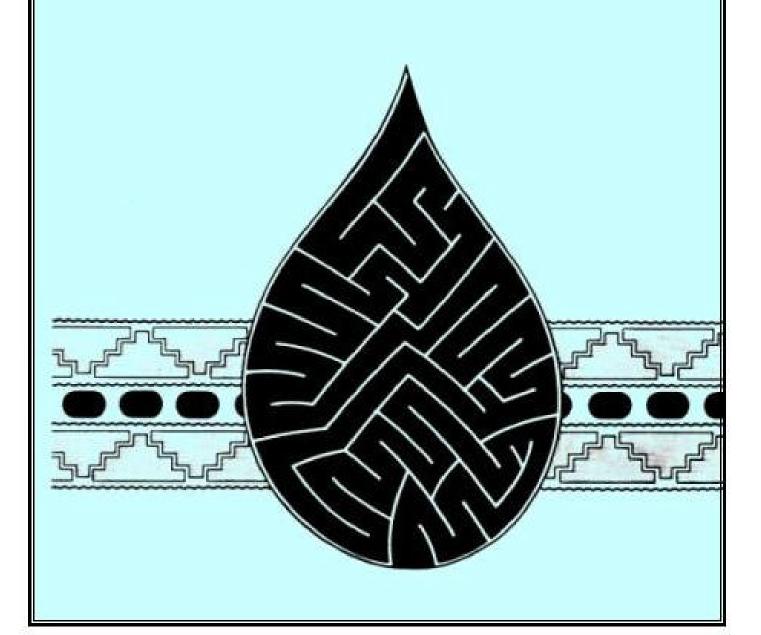
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 EPA

Guidelines And Requirements For Applying For Grants From The Indian Set-Aside Program



ACKNOWLEDGEMENTS

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PREFACE

HOW TO USE THESE GUIDELINES

These Guidelines have been prepared to help Indian Tribes apply for and manage the grants for the construction of wastewater facilities that are available from the U.S. Environmental Protection Agency (EPA) under Section 518 (c) of the Clean Water Act (CWA).

Some aspects of this special program for Indian Tribes are somewhat different and more flexible than the Construction Grants Program, which has funded grants to municipalities under State priority systems since 1972. The Indian Set-Aside Program simplifies administrative requirements. However, existing Construction Grants program materials will be used to the extent they are compatible with these Guidelines.

The Guidelines cover all aspects of project management--from planning, to grant application, to the operation and maintenance of the completed facility.

- Chapter 1 describes who is eligible to apply for grants under the program and outlines the grant process and the main sources of help with your project.
- Chapter 2 shows how to request priority ranking for your project and lists the requirements you will have to meet to receive funding from this program.
- Chapter 3 includes information on facility planning and environmental review.
- Chapter 4 provides advice on the staff you will need for managing a project.
- Chapter 5 discusses the operation of the facility once it is built and lists

- sources of information on training and assistance with plant operation and maintenance.
- Five appendices provide additional information you may find helpful: Appendix A is a glossary of terms used in the Guidelines; Appendix B EPA lists Indian Program Coordinators and other EPA Regional Office contact points; Appendix C contains contacts for the Rural Community Assistance Program: Appendix D consists of the scoring sheets EPA will use in evaluating requests for project priority; and Appendix E lists other Federal laws with which you will have to comply.

Reading these Guidelines will give you a basic understanding of the whole process. Words shown in bold type are defined in the Glossary. After reading the Guidelines, decide if you are a good candidate for a grant, taking into account eligibility and other program requirements. If you decide to pursue a grant, return to Chapter 2 to begin the process.

EPA and the Indian Health Service (IHS) are available to answer your questions. When you decide to apply for a grant, EPA will provide you with the additional details you need to complete a grant request.

BACKGROUND OF THE SET-ASIDE PROGRAM

The Clean Water Act (CWA) Amendments of 1987 required EPA, in cooperation with IHS, to prepare a report on needs for sewage treatment to serve Indian Tribes. This estimate of the wastewater treatment needs for Indian Tribes with jurisdiction over federally recognized reservations, Indian Tribes on former reservations in

Oklahoma, and Alaska Native Villages (as defined in the Alaska Native Claims Act--PL 92-203), is about \$270 million (in 1987 Approximately 55% of these dollars). needs are for the construction of wastewater treatment facilities, while the remainder are for the construction of collection systems and house connections. The 1,510 projects covered by the needs assessment are to serve a population of 402,000. They are not distributed evenly throughout the United States (i.e., the needs are concentrated in three areas of the country, Alaska, Oklahoma and the Southwest; these three areas each account for one-quarter of the total identified needs).

Due to the small size and rural nature of most Indian reservations, the most common wastewater systems are individual septic systems and low-maintenance community systems such as lagoons. Of the reservation projects for which the necessary data are available, approximately 55% are to correct subsurface discharges (such as from septic drainfields and unlined lagoons), while about 15% are to address no-discharge or land-application facilities and 25% are for surface water discharges. approximately 25% of the Indian population with needs identified will be served by surface-water discharge facilities. These findings suggest that ground water may be more at risk than surface water from existing problems. This might pose some concern for Indian families that rely on drinking water wells located near failing on-site systems.

If the authorized Indian Set-Aside Grant Program established by the CWA is fully funded through future appropriations, the set-aside translates into a total of \$28 million over a four-year period--\$5.8 million for Fiscal Year (FY) 1987, \$11.5 million for FY 1988, \$4.7 million for FY 1989, and \$6 million for FY 1990. The funds set-aside by the CWA represent about 10% of the amount that will be required to satisfy all \$270 million in

identified Indian needs. This special grant program is limited, with funding authorized only through 1990. These funds, however, are available until expended. A Tribe does not need to be listed in this special needs assessment to be eligible for grant funding.

In addition to the set-aside program, Tribes will continue to be eligible to compete for construction grant funds through each State's priority process. (Tribes are, and have always been, eligible for funding of wastewater systems under the existing Construction Grants Program.) A Tribe may also apply to a State for a loan or other assistance under the State Revolving Fund (SRF) Program.

Also, other agencies provide some financial assistance to Tribes, including the Indian Health Service, the Department of Housing and Urban Development (HUD), and the Farmers Home Administration (FmHA). In FY 1987, IHS and HUD were the primary sources of financial assistance to Indians.

Section 518 of the Clean Water Act provides that Indian Tribes can be delegated the authority to administer the Construction Grants Program if the Tribe meets certain requirements. However, a Tribe does not have to assume the "State" role to participate in the Indian Set-Aside Program.

EPA has been assisted by a workgroup comprising EPA, Indian Tribes, and IHS in developing a program for awarding grants from the Indian set-aside. The approach in developing this program has been to blend the most appropriate portions of EPA and IHS programs and to seek the least cumbersome ways to meet Tribal The program described in these needs. Guidelines has undergone Tribal review. Feedback on the document has been solicited in a series of five national Tribes. meetings with Indian received have been comments incorporated.

Near the end of the process of development of these Guidelines, Congress amended the CWA to extend eligibility for funds from this program to former reservations in Oklahoma and Alaska Native Villages as defined in the Alaska Native Claims Act. Rather than delay implementation of the program to identify the unique goals of these entities and redraft the guidelines to address them, EPA will work with these areas on a pilot basis and will reflect changes to the program in any future revisions to these Guidelines.

CHAPTER 1 SHOULD I APPLY FOR A GRANT?

WHO IS ELIGIBLE FOR INDIAN SET-ASIDE GRANTS?

This Program is administered by EPA for the purpose of providing funds to:

- Federally recognized Tribes with control over reservation land;
- Alaska Native Villages (as defined in the Alaska Native Claims Act); or
- Tribes on former reservations in Oklahoma

that have jurisdiction over disposal of sewage or other wastes, to help meet the enforceable requirements of the Clean Water Act.

The definition of Indian Tribe provided in Section 518 of the Act is "Any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a federal Indian reservation." A reservation includes "all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running through reservation."

If you represent one of these groups, continue reviewing these Guidelines to learn if this program can help you.

WHAT COSTS ARE INCLUDED?

Grants can cover most costs for planning, design, and building a wastewater treatment facility. Although the Indian Set-Aside Program will pay for 100% of the cost of most parts of the project, you need to find other ways to pay for some

related costs. Project components that are eligible for funding include interceptor sewers, wastewater treatment facilities (conventional or alternative), infiltration/inflow correction, collector sewers, major sewer system rehabilitation, and correction of combined sewer overflow.

The costs that can be covered by a grant from this program are identified by these Set-Aside Guidelines, and, where consistent with these Guidelines, by the government-wide cost principles (OMB Circular A-87) and EPA regulations in Appendix A of 40 CFR, Part 35, Subpart I. Some examples that may be especially important to you in considering whether to apply for a grant from this program include:

- The costs of preliminary activities such as assembling enough information to request priority ranking, preparing an application, selecting an engineer, and developing a plan of study cannot be charged to the grant.
- Grant funds can pay for land only if
 it will be an integral part of the
 treatment process or used for the
 ultimate disposal of treatment
 residues. Nondischarging lagoons are
 one type of treatment for which land
 costs are eligible.
- Grant funds <u>cannot</u> pay for acquisition of right-of-way, the site where a treatment plant will be built, or a landfill site.
- The ordinary operating expenses of a local government are <u>not</u> allowable (e.g., salaries and expenses of elected or appointed officials, preparation of routine financial reports and studies, preparation of applications and

permits, expenses related to bond issuance).

 Grant funds may <u>not</u> be used to pay for the cost of operating and maintaining the wastewater facility.

The principal purpose of this program is to meet existing needs (as of the date of the grant application). Where environmentally sound and cost-effective, limited reserve capacity for future needs may be considered on a project-by-project basis.

There is no formal limit on service to non-Indians living in the project's service area. Section 518(c) of the CWA states that the grants shall serve Indian Tribes. Generally, a treatment system that improves water quality or public health on a reservation serves the Tribe that has governmental authority over the reservation regardless of the number of non-Indians living in the service area.

HOW DOES THE GRANT PROCESS WORK?

Indian Tribes have been allocated one-half of one percent of the annual Construction Grants Program appropriation from FY 87 through FY 90 for the special set-aside program described in these Guidelines. EPA will evaluate requests received from eligible Indian Tribes for funding from the A project priority Indian Set-Aside. system developed by EPA in consultation with the Tribes and Indian Health Service results in a National Indian Project The highest priority Priority List. projects in the fundable range may apply for a grant. Projects not funded may request funding again the following year by updating their previous request.

After EPA has notified you that your project is sufficiently high on the National Indian Project Priority List, you will need to prepare and submit an application for grant assistance to your EPA Regional Office. This two-part process is used so that the costs of application preparation,

which are not eligible for grant funding, need not be borne until priority projects are identified.

An Indian Tribe or Alaska Native Village that does not have the capability to meet EPA's program requirements may request that the grant funds be transferred to the IHS or an approved State program to be administered for the benefit of the grant recipient.

There are three steps in the Indian Set-Aside Grants Program: planning, design, and building, as shown in Figure 1.1. The applicant must comply with all of the requirements of each step before funds can be made available for the next step of the project:

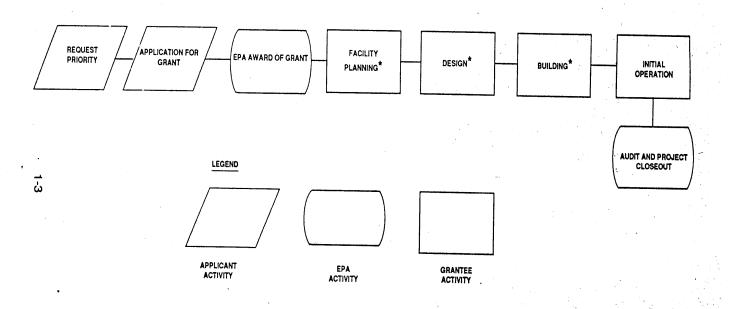
- Planning--Preparation of facility plan to determine the type and extent of project you should build.
- Design--Preparation of detailed design and specifications (includes construction drawings, specifications, and other contract documents).
- Building the project.

If EPA approves your grant application, makes a grant offer, and you accept it, you may begin the procurement procedures necessary to plan, design, and build the project. If you choose to receive funding through the EPA Indian Set-Aside Program, application procedures and the requirements you will have to meet are described in Chapter 2.

Two other aspects of the grant program are designed to ensure that your facility is properly constructed and can do the job that it is designed to do.

An engineering service agreement must be maintained for one year following completion of the facility.

Figure 1.1 Indian Set-Aside Grant Process



*Costs that are grant eligible

This agreement may be with IHS or the engineering firm that supervised construction. This agreement will provide for technical support including overseeing the start-up and operation of the treatment works, training operating personnel, and preparing technical information.

After one year of operation of the facility, the Tribe must certify whether or not the facility is meeting project performance standards and effluent limitations in the grant agreement. If the facility is not meeting these requirements, EPA or IHS will work with you to develop a plan to correct the problem, but EPA will not cover additional costs for the design and building costs of any necessary correction.

The grant program concludes with a process called closeout, which may be preceded by a project audit (not all projects are audited).

WHERE DO WE GO FOR HELP?

EPA and IHS are working together to implement this set-aside program. EPA has responsibility for award of grants, as well as administration of the project priority system and overall program IHS will provide technical oversight. assistance and engineering services, at Tribal request and as resources permit. IHS can help with preparation of program materials including applications, locating sources of funding for project components not eligible for EPA funding, project planning, design, and building management. IHS offices may also be involved in review of grant applications, evaluations for EPA for awarded grants, and oversight during building and the first year of operation. Some specific sources of help and information you may need are discussed in the following sections.

Help With The Priority System (Chapter 2)

EPA does not intend that the Tribe collect new data to request priority for grant funding. However, you may want advice on gathering existing information needed to request priority ranking. EPA and the Indian Health Service both may have information that you can use. EPA has several data bases containing monitoring data that may be applicable to your project. IHS may have conducted a survey of your reservation that you can use in documenting needs. The State adjoining your Tribal land may also have planning or monitoring data that would apply to your project.

If you have questions about requesting priority ranking or about what kind of project to propose, contact the Regional Office of EPA. The restrictions on eligibility for EPA funding purposes may affect your decisions. EPA or IHS can advise you about the various technologies that might be appropriate for your community.

Help with Applying for a Grant (after receiving priority status)

Once you are notified that you have the priority ranking necessary for applying for a grant, the EPA Regional Office serving the area where your Tribe is located can help with the grant application. The EPA experienced Offices have Regional Grants Program Construction designated to assist you. They can answer questions about filling out the forms and about the requirements the proposed project will have to meet. See Appendix B for a list of these contacts.

At a pre-application meeting, EPA can identify sources of help and information. The Indian Health Service is working with EPA in the Indian Set-Aside Grants Program and can advise you, especially about technical and financial issues.

Help with Other Funding Sources

A key problem you will have to solve is the funding of related costs that are not eligible for EPA grant funding. Some possible sources of funds include IHS, HUD, Farmers' Home Administration (FmHA), bonds you issue to borrow money, loans from a bank, or revolving loan funds that some States are starting. EPA and IHS can advise you on gaining access to these and other sources of funds.

Other Sources of Advice or Assistance

Each EPA Regional Office employs an Indian Program Coordinator. This staff person is responsible for working with the Tribes, States, and the EPA Region and Headquarters on system operation, management, and regulatory issues. The Indian Program Coordinator is another EPA resource person the Tribe can contact for assistance. (See Appendix B.)

Under the current Construction Grants Program for States and municipalities, each State has designated an agency to act as the primary agency for EPA construction grants. These State agencies have a wealth of experience in dealing with the Construction Grants Program. They may be able to provide valuable advice, for example, on what you can do in the design and building phases of your project to make operation and maintenance easier and less costly. The EPA construction grants staff can provide you with the appropriate contacts.

The U.S. Department of Health and Human Services funds six regional technical resource centers to help rural, low-income communities solve their water and wastewater problems at an affordable cost. Six nonprofit organizations operate the Rural Community Assistance Programs (RCAP) across the country. They assist communities in planning, financing, and managing of water and wastewater systems. Each RCAP works with a specified number

of communities each year. Even if your project is not selected as one to be directly assisted by an RCAP agency, they can provide you with references and help in finding other agencies or contacts that can provide assistance. (See Appendix C for a list of RCAP contacts.)

EPA operates a clearinghouse at the West Virginia University (see below) for information on wastewater treatment technologies that are of particular interest to small communities. The center maintains a data base of information on wastewater systems, answers questions, publishes a newsletter, and organizes seminars on financing, planning, and managing small wastewater systems. The Small-Flows Clearinghouse can provide names of local experts, documents on system design, videotapes, and other services. Its toll-free number is (800-624-8301).

The Bureau of Indian Affairs should be consulted about right-of-way issues and can assist with archaeological studies required for your Environmental Information Document (see Chapter 3).

Additional information may be found in several EPA publications including:

- 1. It's Your Choice--A Guide Book for Local Officials on Small Community Wastewater Management Options (EPA 430/9-87-006, September 1987).
- 2. Financial Capability Guidebook (March 1984)--A tool for analyzing a community's financial and management capability to construct, operate and maintain a proposed wastewater treatment facility.
- 3. Touching all the Bases--A Financial Management Handbook for Your Wastewater Project (EPA 430/9-86-001, September 1986).

Other sources of information include:

- 1. EPA Headquarters and Regional Offices (See Appendix B.)
- 2. National Small Wastewater Flows Clearinghouse, 258 Stewart Street, West Virginia University, Morgantown, West Virginia 26506 (800) 624-8301

CHAPTER 2

REQUESTING PRIORITY AND APPLYING FOR A GRANT

HOW SHOULD WE BEGIN?

In the Indian Set-Aside Program, a certain amount of work must be done by the applicant before the grant process can be initiated. You must assemble and submit a request for priority ranking. The process for requesting priority for your project is discussed in the following sections. Once EPA notifies you that your project has received priority for funding, you may prepare the grant application, select an engineer to assist in its preparation (if desired) and develop a plan of study, which includes a cost estimate for the project. The costs of these preliminary activities cannot be charged to the grant, so you need to gather the necessary information while keeping expenditures to a minimum. Concentrate on defining the basic problem, identifying sources for the data that you need (1) to be ranked under the priority ranking system and (2) after selection for priority, to prepare a grant application, including developing a cost estimate for completing the proposed These pre-application tasks are described in more detail below.

HOW DO I OBTAIN PRIORITY FOR MY PROJECT?

After reading these Guidelines, call the EPA Regional Office if you have any questions on the following process. The first steps in obtaining funds from the Indian Set-Aside will be to submit your project for ranking to the EPA Regional Office serving the area where the Tribe is located. If you want to propose more than one project, a separate request for priority will be needed for each.

You will have to provide your EPA Regional Office with the information needed to understand and score your

project under the National Indian Project Priority List system. Your goal will be to document the extent of the problem as clearly as possible using the best available information. However, EPA is not looking for large amounts of data. Limit your description of the problem to less than ten pages, based on the information discussed in the sections that follow and the scoring sheets in Appendix D that the EPA Regional Offices will use for scoring your request. You may provide additional supporting documentation as attachments. You may use the information that was provided to EPA or IHS for the Indian Needs Assessment, but EPA recognizes you may need to add to that information.

The Regional Offices will forward the project descriptions to EPA Headquarters. EPA Headquarters will review the scores for national consistency and rank the projects by score to form the National Indian Project Priority List. The funding requested by each project will be added in order of priority until the amount available for the year is reached-this sets the limit called the "fundable range." A project must be ranked within the fundable range of the National Indian Project Priority List be eligible to submit a grant application. Projects that are not in the fundable range in the first priority list (FY 1987 and 1988 funds) may apply again for the second list (FY 1989 and 1990). The same information may be used in the second application, and additional data may be supplied, as well. Of course, requests for priority also may be submitted for projects that were not ready to apply for the first round of funding.

This priority system is not used to establish need, but to determine the extent or degree of the need of a project in relation to other projects. Inclusion in the Indian Needs Assessment is not required;

however, the Clean Water Act does require that the choice of projects to receive federal funds be based on water quality and public health considerations.

The priority ranking system is based on three categories of criteria:

- Water quality,
- Public health, and
- Existing level of treatment.

The information discussed in the sections that follow will assist the Tribe in preparing information on each of these categories. This information will be used by the EPA Regional Office to determine the extent and degree of an existing The information pollution problem. presented here is the minimum EPA believes it needs for ranking the project. The Tribe is encouraged to provide any other information that will assist in determining the project's priority. Refer to the scoring sheet EPA will use in its ranking process which is provided in Appendix D.

Project Information

The request for priority should describe the magnitude of the problem including the population affected and to what extent the project will address the problem. A project cost estimate is also needed. EPA or IHS may be able to provide an estimate that will serve this purpose.

Water Quality

This category includes the information required to document effects on surface water and groundwater regardless of whether the current wastewater treatment system discharges to surface waters, is a nondischarging system, or is a system that has both discharging and nondischarging components.

In the case of impacts on surface water:

- What is the use of the waterbody to be supported by the project.
- Are any swimming areas or aquaculture areas (e.g., fish, shellfish, wild rice) closed (or consumption restricted) because of contamination from municipal wastewater discharge? Include a statement from the health agency that required the closing. To what extent has the waterbody been affected?
- Has the facility had permit violations during the twelve preceding months?
- Describe any measures undertaken to protect the waterbody.

For those applicants whose pollution problems are a result of nondischarging systems, including on-site systems such as septic tanks, other non-sewered systems, or sewered systems with no discharge such as evaporation lagoons:

- What is the failure rate of existing treatment systems within the project area? For the homes that have failing septic systems, where do they get their water (from an existing well on the property or a public well?) How far is that well from failing systems?
- How often and to what extent does effluent from these failing systems pond on the surface?
- How near is the waste to residences and/or public areas?
- Are wells unsafe for drinking, or have elevated levels of pollutants (such as coliform bacteria and/or nitrates) been detected that can be related to the failing systems?

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- How often and to what extent does effluent from these failing systems pond on the surface?
- How near is the waste to residences and/or public areas?
- Are wells unsafe for drinking, or have elevated levels of pollutants (such as coliform bacteria and/or nitrates) been detected that can be related to the failing systems?

 Describe the measures undertaken to prevent impacts on public health and ground water.

Tribes may provide other water quality information, beyond the data described above. For example, you may describe how the project will help protect priority water quality areas, such as wild and scenic rivers, fish spawning areas, a solesource aquifer, etc. Other possible data, available, include proportions of pollution-tolerant and pollution-sensitive species, diversity of aquatic life and numbers of individuals. presence of endangered species, length of stream segments affected by the pollution, stream characteristics, and background conditions.

Public Health

Water pollution effects on public health mainly relate to the potential for disease outbreaks and contamination of drinking water supplies.

Describe any disease outbreaks believed to be related to inadequately treated sewage. This description should include the types of disease outbreaks, number of cases, and the frequency and duration of the outbreaks. Include a statement from a public health official explaining how the outbreaks are linked to inadequately treated sewage.

If surface water, supplies are used for drinking water:

- How far is the existing wastewater discharge from any affected or potentially affected water supply intakes?
- What (if any) type of contamination is occurring (e.g., fecal coliform, nitrates, pesticides, other chemicals, etc.)? How often and for how long?

For those areas with nondischarging wastewater systems where ground water is used as a water supply:

- How deep is the water table in the area where wastes are disposed?
- How readily will waste migrate through the soil?
- What type of contamination (if any) is occurring (e.g., fecal coliform, nitrates, pesticides, other chemicals, etc.)?

Provide any additional documentation that is available, such as the soil type, geologic structure, and hydraulic conductivity and gradient in the area where subsurface waste disposal is a problem.

The existing condition of the habitat for aquatic life, habitat restoration potential, and use of the harvest (commercial, sport, subsistence, etc.) may be documented if it assists in describing the significance of the problem and in linking the pollution problem to public health problems.

Segments of water bodies where waterdependent recreation has been restricted as a result of the pollution problem should be identified along with the proximity of the wastes to these areas.

Existing and potential use of affected water (e.g., religious, cultural, fishing, swimming, boating) and the intensity of use are other types of information that can help increase EPA's understanding of the need for your proposed project.

In addition, if the existing wastewater system is under a Tribal, State, or Federal enforcement order, you may describe the circumstances leading to the order. You should include information on actions you have taken to improve the situation or to try to avoid being out of compliance with your permit or other enforceable requirement.

Existing Level of Treatment

Describe the level of treatment that the existing wastewater system now serving the Tribe is designed to provide.

- The level of treatment of any central treatment system (i.e, primary, secondary, or advanced treatment);
- Existing on-site systems (e.g., septic tanks);
- No existing treatment systems; or
- A combination of these situations.

If the system is not operating as designed, describe why.

Generally, the Clean Water Act requires systems that discharge to surface water to provide secondary treatment. If you have a wastewater treatment plant that provides secondary treatment, your project will not receive as many points in this category as those with no treatment or only primary treatment. If different areas of a project are served by differing levels of treatment, estimate the population served by each level of treatment.

Areas served by septic systems or other on-site systems should estimate the population served by properly operating on-site systems versus those served by failing or likely-to-fail on-site systems (e.g., systems located over areas with nitrates and/or bacterial contamination in the ground water, especially in the case of sole source aquifers, or systems with surfacing effluent, or systems expected to cause these problems within three to five years if not corrected).

WHAT DO WE DO NEXT?

Once EPA has informed you that your project has received priority for funding on the National Project Priority List, you may prepare a grant application. The

information required depends on what type of grant you are requesting. The type of grant assistance you need depends on how far along you are in the wastewater planning process:

- Apply for a Building grant if you have completed facility planning and have developed the plans and specifications for the proposed project;
- Apply for a Design and Building grant if your facility plan is complete, but you need grant assistance for designing and building your project; and
- Apply for a Planning, Design and Building grant if you have not prepared a facility plan.

The formal award any of these types of grants obligates funds from the Indian set-aside for the applicant's project. For each step, you may request payments from EPA as costs are incurred, except in the case of an advance, which you may receive as an up-front payment or under a negotiated schedule. Grantees may receive an advance at the beginning of each step based on a percentage of the estimated final cost of building the facility as described in Tables 1 and 2 of Appendix B of 40 CFR 35.

Grantees who have completed the planning or design steps without grant assistance may receive an allowance for costs incurred based on the percentage of the estimated final cost of building the facility as shown in the Tables described above.

The paragraphs that follow describe several actions that you need to take when you decide to apply for a grant.

Pre-Application Conference-After EPA notifies you that your project is in the fundable range and you are selected to apply for a grant, EPA will provide you with other guidance that you will need

during the grant application process during a Pre-Application Conference. EPA will want you to identify any Water Quality Management Plan or enforceable requirements (such as a National Pollutant Discharge Elimination System (NPDES) permit, ground water standards, or other local requirements) that may apply to the proposed project. You may choose to work with EPA, IHS, or perhaps a State to provide project review and technical assistance, and fund administration. In all cases, EPA will have the final project review and approval authority. A listing of EPA Regional Office contact points, addresses, and telephone numbers is provided in Appendix B.

Specification of Authorized Agency--The Tribe must designate a governmental body within the Tribal structure, such as a Tribal utility authority, to be legally responsible for the project. This body must have the legal authority to execute contracts and prepare grant documents on behalf of the Tribe.

Selection of Consultant--The selection of an architect/engineer (A/E) is one of your most important decisions. Often, the A/E will do most of the work in both the facility planning and design steps of the project and will provide additional services during the construction and initial operation of the facility. Additional information on the selection of an A/E can be found in Chapter 3 of these Guidelines. It is important to remember that the costs of preliminary activities such as selecting an A/E cannot be charged to the grant. The Indian Health Service may be able to fill this role if you wish and in any case is a possible source of expertise related to facility planning and design.

Retention of Legal Counsel-You are likely to need legal counsel starting with the earliest phases of the process.

Consultation with Interested Parties-There may be members of the public to be served by the system and private and public bodies with either direct or indirect interest in the outcome of the project. Public meetings with these groups can allow as many views as possible to be incorporated into the planning process. Involvement of the public is required; begin establishing a dialogue as early in the process as possible.

Development of the Plan of Study--A simple Plan of Study may be required if you have not completed a facility plan. The Plan of Study should include:

- Identification of the proposed study area;
- Identification of the parties to do the planning;
- Outlining the scope of the planning effort, including a schedule for completion of tasks;
- Outline of the public participation program; and
- Estimated costs of each step of the project (planning, design and construction).

Each of these items should be discussed at a level of detail appropriate to the scale of the proposed project.

Applicant Qualifications

A grant application must demonstrate the applicant's capability to successfully undertake a wastewater treatment project. The recipient organization must be authorized by the governing body of a federally recognized Tribe or Alaska Native Village to be eligible to receive Indian Set-Aside grant funds. In addition, the Tribal government must have the ability to manage the funds. These requirements are discussed in the following paragraphs.

The Tribe must provide information to document that it has the legal, institutional, managerial, and financial capability to ensure adequate construction, operation, and maintenance of the proposed facility to receive a grant through the EPA process. Your EPA contact can advise you of options that use the ability of other agencies to augment your own. This information should include:

- Roles and responsibilities of the units of government that will manage the project;
- Description of the Tribe's experience in managing projects of similar size and the boards, committees, and other governmental bodies that are available to provide institutional support for the project (including before, during, and after construction);
- Up-to-date cost estimates for the project, including any future segments and phases required to complete the overall wastewater treatment system (this estimate will vary in detail depending on whether the planning and design steps have been completed);
- A plan for financing related costs of the facilities that won't be funded by EPA (the EPA Regional Administrator or designee will make the final determination on what constitutes an allowable cost);
- A listing of other proposed funding sources and status (application made, funding approved, etc.);
- Indicators of the Tribe's financial condition including historical trends in the availability and sources of revenue;
- Documentation that the revenues provided by the initial users of the

- system and the Tribe will be sufficient to cover the cost of, operation and maintenance.
- Cost per household and whether or not these costs have been presented to the community for comment; and
- A letter from an appropriate official of the Tribe certifying that the Tribe has the capability to finance and manage the proposed facility.

Chapter 4 of these Guidelines describes the staffing you may need to insure adequate management of the project. If your Tribe or village does not have the capability to meet EPA's program requirements, you may request that the grant funds be transferred to the IHS or an approved State program to be administered for your (the grant recipient's) benefit.

GRANT OFFER OR AWARD

At the time of the grant offer, EPA will specify the amount of time the Tribe will have to meet certain requirements. If these requirements are not met within a reasonable period of time (as determined by EPA) the money allocated for that project will be returned to the Indian Set-Aside. The Tribe may enter into a Memorandum of Understanding with IHS or a cooperative agreement with a State to meet EPA's requirements.

If your Tribe has received a grant from EPA in the past (e.g., a grant for construction of another wastewater treatment project) the Agency will review the status of that grant before making an award under this program.

HOW WILL OUR PROJECT BE REVIEWED?

Some requirements only apply to certain types of grants. Others only apply at certain stages. The requirements have been grouped so you can focus on the items that you need to consider first.

Requirements All Projects Must Meet

Before any grant can be awarded, there are certain requirements that must be fulfilled.

Water Quality Management Plans and Standards: The goal of the CWA is to protect water quality. The basic tools used to implement this provision of the Act are water quality management plans and designated water quality standards. The applicable water quality management plan and standards are used in establishing the need for the proposed facility and its relation to other needs and facilities. If no applicable water quality management plan or standards have been developed for the project area, EPA will help determine what plan and standards are to be used.

Designation bу the Water Quality Management Plan: If an applicable water auality management plan has been developed for the area to be served by the proposed project, the Tribe must be the governmental body designated by the Plan or identified by the EPA Regional Administrator. During facility planning, the Tribe should coordinate with adjacent service areas, both Indian and non-Indian. Cooperative arrangements between States and Indian Tribes are encouraged.

Priority Ranking: The project must be within the fundable range of the Indian Set-Aside Program. EPA will notify applicants in the fundable range that they should begin to prepare an application.

Eligible Projects: Only certain types of projects are eligible for funding through the Indian Set-Aside Program. The project must be for the planning, design and/or building of interceptor sewers, wastewater treatment facilities (conventional or alternative), infiltration/inflow correction, collector sewers, major sewer system

rehabilitation, and correction of combined sewer overflow. Also see the definition "Eligible for Funding" in the Glossary.

Planning costs may be covered by an advance based on the estimated cost of building the project. The applicant will need to identify the sources of funding for the portions of the project that are not eligible for funding through the Indian Set-Aside Program.

Federal Facility Service Restrictions: Federally owned and operated facilities served by the project must be identified. Capital costs for providing service to these facilities are generally eligible if they mainly serve Native Americans (e.g., BIA and IHS facilities). However, these facilities will need to pay user charges under the Tribe's User Charge System (p. 2-9).

Industrial Service Restrictions: The portion of the total wastewater treatment works capacity built to handle industrial flow must be identified. Portions of the project constructed solely to serve industrial facilities are not eligible for EPA funding. The industrial portion of the treatment plant influent must meet applicable EPA pretreatment requirements.

Facility Plan: An acceptable facility plan must be submitted before Design or Building can begin. The facility plan consists of the plans and studies that directly relate to the proposed treatment works that are necessary to comply with the requirements of the Clean Water Act. The facility plan substantiates the need for the proposed facilities. It also is used to document why the selected treatment system best meets your needs. It includes information on estimated project costs, details of the proposed system, a summary of public participation, and other topics.

Environmental Information Document: As part of your facility plan, you will develop an environmental information document. This document must be approved before

design or building can begin. The environmental information document (EID) evaluates the direct and indirect effects of the proposed project on:

- Historical and archaeological resources
- Environmentally sensitive areas and species
- Air quality
- Drinking water

The EID will be used by EPA to determine if an Environmental Impact Statement must be developed for the proposed project. Other agencies may be able to assist in gathering or providing information for the EID. For example, BIA often can supply land and use archaeological data. Additional information about the environmental review process can be found in Chapter 3 of these guidelines.

Intermunicipal Service Agreements: If two or more political jurisdictions are to be included in the project, the eventual grant applicant may be a joint authority that represents all of the jurisdictions or a designated lead agency. In such cases the facility plan will be developed consistent with a written intermunicipal service agreement.

Infiltration/Inflow: The applicant must demonstrate that each sewer system discharging into the treatment works is not subject to excessive infiltration and inflow (I/I).

Existing Need/Reserve Capacity: Those portions of a project that address existing need, as of the date of the grant application, are allowable for funding. Where environmentally sound and cost-effective, limited reserve capacity for future needs may be considered on a project-by-project basis. Existing need also includes nonsewered homes in the service area.

Intergovernmental Review: regulations require that information about, any project proposed for federal funding must be provided to other governments that might be interested in or affected by The review process is the project. conducted to minimize problems and to give other jurisdictions the opportunity to comment on the proposed facility. intergovernmental review process for an Indian set-aside project will be coordinated by the EPA Region. The Tribe will submit the application to EPA, and EPA will notify jurisdictions, including federal agencies, that may have an interest in the proposed facility. Additional information regarding the intergovernmental review process can be found in Executive Order 12329 and 40 CFR Part 29.

Procurement: A grantee must follow the procurement process provided in Federal regulations (40 CFR 31), including applicable Indian Preference provisions and the affirmative steps for utilizing small, minority, and women's business enterprises. EPA cannot recognize "Tribal" or local preference ordinances, nor is EPA subject to Federal Buy Indian provisions.

Use of Debarred and Suspended Firms: The General Services Administration maintains a list of individuals, organizations, and units of government that have been debarred, suspended, or voluntarily excluded from the program. The Tribe should contact the EPA Regional Office to obtain an up-to-date list of these firms.

Additional Federal Requirements: As with any Federal grant program, grants from this program are subject to other Federal laws and regulations, in addition to specific requirements of the Clean Water Act. Guidance on how to comply with these laws can be provided by EPA staff. Some examples of these laws and the requirements they place on a grant project are listed in Appendix E.

Requirements that Apply at the Design Phase of a Design and Building Grant or Application Phase of a Building Grant

Before the project can move to the building phase, the following requirements must be met.

User Charge System: The source of funds to be used to operate and maintain the facility must be identified. This is usually done by a community adopting a system to assure that each recipient of waste treatment services will be assessed a proportional share of the costs of operation and maintenance of the facility. For this Set-aside program, operation and maintenance expenses not paid for by revenues from a user charge system may be augmented by other Tribal funds.

Sewer Use Ordinance: The approval of a sewer use ordinance or equivalent legally binding document is a prerequisite to the award of a building grant. A model sewer use ordinance is available from EPA. A sewer use ordinance must:

- Prohibit new inflow sources (extraneous water generally associated with storm events);
- Assure that new sewers and connections are properly designed and constructed:
- Prohibit the introduction of toxic or hazardous wastes into the sewers in an amount or concentration that:
 - Endangers public safety,
 - Endangers the physical integrity of the system,
 - Causes violations of the NPDES permit,
 - Precludes selection of the most cost-effective alternative for treatment, reuse, and sludge disposal; and

• Ensure that all existing residences in the sewered area will connect to the sewer system within a reasonable time after completion of the project.

Completion of All Plans and Specifications: Before the facility can be built, all plans and specifications for the project must be reviewed and accepted by EPA.

Requirements for the Building Phase of a Design and Building Grant or Application Phase of a Building Grant

Non-Restrictive Specifications: Specifications must be written encourage free and open competition. Specifications cannot contain exclusionary discriminatory requirements structures, materials, equipment. processes other than those based on performance. When it is not practical to make a clear and accurate description of the technical requirements, a "brand-name or equal" description may be used to describe the minimum requirements.

Buy American: The CWA requires that preference be given to American-made construction materials in EPA grant-assisted projects. Materials made in the U.S. can cost up to 6% more than foreign-made materials and still be considered cost-effective.

Plan of Operation: A draft plan of operation must be completed and submitted to EPA before the award of a contract to build the facility. This draft plan summarizes the actions necessary identify steps required to ensure costeffective, efficient, and reliable project continued start-up and The final plan of operation operation. must be submitted to EPA before or at the 50% time you request the same construction payment. The final plan of operation should address the following:

- Budget
- Financial management system
- Staffing and training
- Emergency operations program
- Administrative functions
- Start-up services
- Operation and maintenance of specific treatment processes
- Availability of laboratory services
- Operation and Maintenance Manual

One-Year Certification: One year after initiation of operation, you must certify that the facility is or is not meeting project performance standards. To help achieve an affirmative certification, you must execute an engineering service agreement for one year with IHS or the A/E firm that supervised building. This agreement is to provide training, supervision of initial operations, and technical assistance during the one year project performance certification period.

CHAPTER 3

TECHNICAL GUIDANCE

This chapter of the guidance reviews the procedures the Tribe should follow when starting the project. It provides the Tribe with information on selecting and procuring the services of an engineer and identifying other agencies and organizations that can help with project planning and development.

FACILITY PLANNING FOR SMALL COMMUNITIES

EPA's Indian Set-Aside Program requires a facility plan to ensure that the most cost-effective and appropriate environmental solution is selected for your project. The major step in this process is the facility plan.

Most Tribes are in small communities. Facility plans developed for communities must address issues that differ from those faced in larger communities. The per capita costs for conventional wastewater treatment projects may be higher in smaller communities, often due to the size and population density of these communities. Smaller communities have fewer financial and management resources support the project. circumstances make it critical that such communities use cost-effective treatment systems.

Treatment systems with low costs for operation, maintenance, and equipment replacement are especially important, as these costs will influence the annual operating costs of the facility to your community. Small sewered communities must at least consider land treatment and other low cost alternatives, such as facultative ponds and sand filters. Communities or portions of communities that are unsewered should consider on-site treatment systems.

Information has been developed by EPA to assist communities in the selection of an appropriate wastewater treatment technology. Chapter 5 of the guidelines identifies agencies and organizations that can help Tribes with the operation and maintenance of the selected treatment system once building is complete.

Your contacts at EPA and IHS can help you get the most benefit from these materials. You may want to hire a consulting engineer to provide expert assistance as well.

ALTERNATIVE TREATMENT TECHNOLOGIES

Alternative treatment technologies emphasize water conservation or the elimination of the discharge of pollutants. They place strong emphasis on reclaiming and reusing wastewater, productive recycling of wastewater and sludge constituents, energy recovery or other environmental benefits that may contribute to reducing costs.

Alternative technologies are available for effluent treatment, sludge handling and disposal, and on-site treatment or alternative conveyance systems that have special applicability for use in small communities. Some of the technologies that have been defined as alternative include the following:

 Effluent treatment--e.g., land treatment, aquifer recharge, aquaculture, horticulture, direct reuse (nonpotable), and containment ponds (total).

- Sludge--e.g., land application, composting before land application, and drying before land application.
- Energy recovery--e.g., anaerobic digestion.
- Small community systems--e.g., onsite treatment (individual or cluster), septage treatment, and alternative collection and conveyance systems.

Alternative technologies are considered to be fully proven but may be less well known because of infrequent use. They also may require special consideration during facility planning. If you require additional assistance, you should contact your EPA Regional Office or EPA's National Small Wastewater Flows Clearinghouse located at West Virginia University in Morgantown, WV [1-800-624-8301]. The Clearinghouse can assist you in obtaining information on small community wastewater treatment systems.

ENVIRONMENTAL REVIEW

The statutes establishing EPA's grant program have extensive environmental requirements and processes. However, EPA has designed the Indian Set-Aside program to make the environmental review process as easy as possible.

Your environmental information document in the facility plan will help EPA to determine whether EPA will issue a Finding of No Significant Impact (FNSI) or whether a full-scale Environmental Impact Statement (EIS) will be necessary. Most projects will only need a FNSI. Your EPA and IHS contacts can help you decide how to address environmental issues.

Some types of projects are excluded from the requirement for an environmental review. Your EPA contact can determine if your project qualifies for a categorical exclusion.

SELECTING AND PROCURING AN ARCHITECTURAL/ENGINEERING FIRM (A/E)

This section provides suggestions on selecting an engineering firm to help develop solutions to solve your wastewater treatment problems. The engineering firm selected will help you with the planning, design, and building of the treatment system. Indian Health Service staff may be able to assist in the early problem identification and planning stages and in the selection of your consulting engineer.

Selecting and procuring and A/E firm is one of the most important tasks of the entire project. EPA procurement regulations (40 CFR Part 31) must be followed. If you do not follow EPA's rules and procurement regulations, all the engineering costs could be disallowed, resulting in extra costs for the Tribe. Make sure you understand EPA's procurement rules and regulations before you select your A/E firm.

The A/E firm that you hire will be working on behalf of the Tribe. It is crucial that you pick an engineer who wastewater understands the Tribe's treatment problem and can help you find an environmentally acceptable solution at a cost the Tribe can afford. Therefore, you must have a clear understanding of the scope of the problem before the engineer is hired. Contact the EPA Regional Office (see Appendix B) to review any Federal, State, and local requirements the Tribe will have to comply with in carrying out the project. Also, the Tribe may want to impose its own requirements.

The six steps described below for selecting and procuring an engineering firm meet EPA's rules and regulations:

Create a selection committee--The Tribe should appoint a group to conduct this task. A committee made up of three to five individuals is adequate. The committee should have a clear understanding about the limits of their authority and responsibilities in selecting the engineer.

Develop a list of candidate architectural/ engineering firms--The committee will want to contact agencies or organizations such as IHS, Rural Community Assistance Programs, Cooperative Extension Service, other Tribes. and State agencies, neighboring communities for names of Keep in mind that firms to consider: different firms have different kinds of Try to identify firms that experience. have worked on projects like the one you're considering. In addition, you must advertise your intention to contract for engineering services for at least 30 days before proposals are due. Professional journals and local and regional newspapers are possible places to advertise.

Ask for a summary of qualifications-Contact firms from the list the committee develops, and ask for a statement of their experience and qualifications. Once the committee has reviewed this information, firms that are not qualified or are not interested in the work can be eliminated, while qualified firms go on to submit specific proposals (see next step).

Issue a Request for Proposals (RFP)--The committee should prepare a request for proposals, describing the wastewater problem and asking the firms to explain how they plan to solve it. The need for services must be advertised in newspapers, journals, or other publications at least 30 days before any proposal is due. The RFP should be as specific as possible in order Figure 3.1 to get the best responses. provides an outline for the RFP. It should include the standards that will be used to judge the proposal. The committee may want to ask those who helped with the list to help develop and review the RFP. Make sure the statement of work covers all aspects of the project, including the design, building, and assistance during the one-year project performance certification period. Following EPA procurement requirements will allow you to use the same engineer for the planning, design, and building phases with the assurance that these costs are allowable for grant participation. Figure 3.2 is a checklist to help you evaluate proposals.

Interview the Architectural/Engineering Firms--Based on the standards developed by the committee and stated in the RFP, the best firms should be interviewed. Two to five firms is a reasonable number to interview. The committee should consider the following factors in the interviews:

- Experience with Tribes;
- Experience with similar projects;
- Design experience with wastewater treatment facilities;
- Willingness to work with the Tribe;
- Staff experience and qualifications;
 and
- Price.

After the interviews, check the references of the firms that are being considered.

Select a Firm--After the committee has evaluated all the relevant information and selected the firm, the committee may need to confer with the Tribe's decision making body regarding their choice. Once a final decision has been made, the committee should negotiate a fair and reasonable contract for services with the A/E firm. The negotiation of the contract needs to include provisions for assistance during the one year project performance certification The Tribe should obtain legal period. assistance in preparing a contract with the A/E firm. The contract must protect the interest and the Tribe.

Figure 3.1

REQUEST FOR PROPOSAL OUTLINE

- A. Cover Letter
- B. Background of Project
- C. Statement or Scope of Work
- D. May Also Include Request for Qualifications
- E. General Instruction for the Preparation and Submission of Technical and Cost Proposals
 - 1. Deadline for submitting the proposal
 - 2. The person to contact for additional information
- F. Criteria Used to Evaluate Proposals
 - 1. Firm qualifications
 - 2. Technical staff qualifications
 - 3. Project management
 - 4. Personnel committed to project
 - 5. Rates
 - 6. Expenses (phone, travel, direct vs. indirect expenses)
- G. Time Frame for Performing the Work
- H. Contingency Plans for Cost or Time Frame Changes
- I. Legal Requirements
 - 1. Liability
 - 2. Other
- J. Anticipated Contract Provisions

CHECKLIST FOR PROPOSAL EVALUATION

EXPERIENCE AND QUALIFICATIONS		
OF FIRM:	•	Years in the field
		Similar projects in scope and size
	同	Experience in innovative/alternative design
	\Box	Experience with grant-funded projects
		Experience with water/wastewater rehabilitation
		Experience with regulatory agencies
		Licensed in your state?
	一	Soil scientist on staff?
PERSONNEL:	一	Number of qualified personnel offered
		Experience of key personnel assigned to the project including: • years of experience • similar projects • education • experience with grant-funded projects
		Location and availability of personnel
PROPOSAL:		Construction services
		Professional liability insurance
		Operations and maintenance manual included?
		User charge information included?
		Itemized costs and summaries for different project phases
		Total cost
		How does the firm charge?
		Does the proposal address all aspects of the request for proposal?
REFERENCES:		Is the reference satisfied with performance of the firm?
		Did the firm meet project deadlines?
		Was construction or design within the budget limits?
		Is the firm willing to work for and with the community?
		Was the firm successful with similar projects?
		Are the utilities designed by the firm operating well?
		Did the firm develop a working relationship with the town and the
		construction contractor?
	Γ_	What was the extent of on-site inspection by the firm?
		· 3-5

CHAPTER 4

PROJECT MANAGEMENT GUIDANCE

EPA's goal, as part of its mandate to protect America's waters, is to ensure that its grant funds are being used for properly well-constructed wastewater designed. treatment systems. In that regard, the Agency has identified two concepts which generally associated with the successful use of grant funds. These are: (1) that good project management and management planning will result in a successful project, and (2) that a properly designed well-constructed wastewater treatment system is most likely to be achieved when someone responsible for the project is held strictly accountable for expenditures and the ultimate performance of the constructed facilities.

At this point, you should know that you are eligible to apply for a grant under this program and that the project you have in mind is eligible for funding. You should have received priority ranking so you can seek funding. If you receive a grant, you will have to manage it properly.

Some of the key members of the project team are described briefly below. The cost associated with these members of the project team is generally grant eligible for project-related work using generally accepted government accounting standards. These are not necessarily full-time jobs. In fact, depending on the size and nature of the project, one person may perform more than one role. It must be emphasized that the grantee must keep detailed, well documented records of any expenditures related to the project (e.g., time cards).

Authorized Representative

The authorized representative is the official ultimately responsible for the project and, therefore, the management of

the project from start to finish. If a project manager is not designated, the authorized representative should be prepared to assume the project manager role full-time.

Project Manager

The key to good project management is to designate a project manager to take charge of all grant and project-related activities. This person should be readily available full-time to deal with project matters, given the necessary authority to coordinate all oversee and activities, and may, depending on the size and complexity of the project, be supported by a team of professionals who provide advice and assistance in specialized The person selected should areas. preferably have experience in dealing with regulatory agencies, federal grants, and construction projects, and should have the coordinate the project ability to management team effectively.

Architect/Engineer

For projects that do not yet have a facility plan or design, an important role to fill is that of the architect/engineer. IHS may be able to provide this service in some cases. In others, you will want to hire an engineering firm to conduct the planning and design phases of the project. Some Tribes may have their own engineer available to do this work. If an engineering firm is hired for this work, the same firm may be retained to supervise building of the project if the initial procurement is handled according to EPA requirements. (See Chapter 3 for advice on selecting and procuring an engineer).

Construction Manager

During building of the project, the project manager may provide the basic construction management direction. However, the detailed cost estimating, schedule monitoring, and quality control systems on large or complex projects may justify retaining a construction manager. A construction manager helps the project manager control project costs and keep the work on schedule. Many engineering and construction firms offer construction management services

Administrative Support

The project manager may delegate certain administrative functions to a staff member, if one is available. These include maintaining project records, preparing progress reports, etc.

Technical Advisor and Support

It is common practice for municipalities to hire a consulting engineering firm to act in the capacity of the technical advisor. The Indian Health Service may provide this function in some cases. The selection of a competent and experienced technical advisor is an important decision to ensure that the project is well constructed, completed on time, and satisfies applicable requirements. The technical advisor may be the engineer that designed the project or another one hired through the competitive negotiation process. technical advisor does not need to be located at the project site, but must be readily available to the project manager and resident engineer or inspectors.

Resident Engineer

The resident engineer, who is the technical advisor's on-site engineering representative, oversees inspection and work quality, handles field communications with the construction contractor, supervises and coordinates the work of the inspectors and is responsible for periodic reports to the project manager.

Inspectors

Inspection services are often provided by employees of the technical advisor. The project manager should ask the technical advisor how many inspectors are needed and require at least one, generally full-time. The inspector is responsible for preparing daily inspection reports, which should provide enough detail that project events can be reconstructed to adequately resolve any construction contractor claims or other issues.

Financial Advisor and Support

The financial advisor should make sure that financial information is presented in a way that supports decision making and facilitates audits. The project manager of a small project might personally assume part of this function, while in a larger one the chief financial officer will probably provide this function.

Legal Advisor

The bulk of the legal advice that is needed is in the area of contract law, although a lawyer may also have to be consulted on issues of legal authority, acquiring property and easements, procurement, and resolution of disputes. The legal advisor should be familiar with contracting procedures on federally assisted projects and be accessible to the project manager when unforeseen needs arise.

Construction Contractor and Subcontractor

The construction contractor and subcontractors are responsible for building the facility and installation of equipment in compliance with the contract documents, which consist of the construction contract and attachments, plans, and specifications.

CHAPTER 5

OPERATION AND MAINTENANCE

This chapter of the Guidelines identifies agencies and organizations that can help Tribes with the operation and maintenance (O&M) of the system once construction is complete. This chapter also summarizes operation and maintenance for land treatment, stabilization ponds, trickling filters, and on-site treatment systems. Operation and maintenance requirements are too often neglected in the selection and design of treatment systems. grants will not pay for the replacement of pumps and other parts of systems when they wear out. You need to plan for O&M to make sure your system lasts as long as it should and to make sure you have the resources to fix and replace parts when they break, or better yet to replace them before they break.

RESOURCES AND TRAINING

This section of Chapter 5 lists agencies and organizations that can help with the day-to-day operation and maintenance of the system. The Tribe may also be aware of local and other resources not identified here. The types of assistance range from on-site analysis and troubleshooting to training and certification of the treatment plant operator.

The Consulting Engineer

When the Tribe negotiates the contract with the engineering firm, it should include the preparation of an operation and maintenance manual and a provision for assistance with initial start-up and one-year certification activities. This is important because once the system is built, the engineer should be available to help the Tribe and the operator in the event that problems arise. If your Tribe employs a staff engineer, you may need to require

that the consultant meet with your engineer on an "as needed" basis.

Indian Health Service

IHS provides Tribes with a variety of training and technical assistance services on the operation and maintenance of wastewater treatment systems. However, the amount of service varies due to differing work loads and staffing in each IHS office. You may want your design engineer to consult with IHS engineers on the best way to design your system for minimal operation and maintenance problems.

109(b) Environmental Training Centers

More than 23 States have environmental training centers for wastewater treatment operators. Many of these centers are housed in community colleges. All of these centers offer training and certification for wastewater treatment plant operators. Some of these centers . offer correspondence courses and on-site assistance to wastewater treatment systems with flows under 1 million gallons per day. EPA staff can provide more information on these programs.

Community and State Colleges

In many States, local community colleges and State colleges have extension programs for training wastewater operators. Many of these courses are offered through the mail so they do not necessarily need to be located in your area.

Other Sources of O&M Assistance

The Rural Community Assistance Program, EPA's Small-Flows Clearinghouse, EPA Regional Offices, and State Construction Grants Programs, described in Chapter 1, may be sources of O&M advice.

WHAT'S INVOLVED IN OPERATING A WASTEWATER SYSTEM?

The treatment systems outlined in these Guidelines have all been selected because they are simple to operate and use few mechanical parts. Mechanical parts not only provide maintenance problems, they also require electricity to operate. The costs of pumping wastewater from place to place in a treatment facility can be expensive, especially in many rural areas where energy costs are high. Several low-cost, easy-to-operate systems are described in the following paragraphs.

Ponds and Lagoons

In their basic form, ponds (they are also called oxidation or stabilization ponds and lagoons) are very simple. Wastewater is placed in ponds. Natural biological action treats the sewage and the leftover water (effluent) either evaporates or is moved off into land treatment, sand filters, or other suitable disposal methods. If the ponds are down hill from the source of the wastewater, pumps may not even be required in this type of system.

Land Treatment Systems

There are a number of types of land treatment systems ranging from a large vegetated area, to a farm or forest. Irrigation, overland flow, or infiltration-percolation can be used as land treatment depending on the amount of effluent and the soil conditions. These systems allow for the reclamation of the wastewater. Some of these require more operation and maintenance than others.

Also, the area where the effluent is applied may need to be restricted from public use, and if used for farming some crops may not be grown. These systems can use pumps and distribution systems to evenly distribute the wastewater. Land treatment systems usually use ponds, trickling filters or on-site systems to "pre-treat" the wastewater.

Sand Filters

A sand filter, as the name implies, is simply a bed of sand that has effluent (from a pond, trickling filter, or on-site system) slowly run over and through it. A sand filter can provide wastewater treatment to a very high standard. However, though the sand is a simple way to do treatment, it must be turned over and worked a good deal to keep operating well. Small tractors or other mechanical devices are needed. The sand and other layers of gravel under it may also need periodic replacement.

Trickling Filter Systems

This type of system requires more moving parts and pumps. A trickling filter has wastewater slowly pass over and through a bed of rocks or similar media. bacteria attach to the media and digest the wastewater as it goes by. systems usually need a mechanical device to evenly distribute the wastewater and pumps to make sure the flow is even. After the wastewater has passed through the tricking filter, the remaining "effluent" is usually sent to a pond or land treatment for additional treatment or "polishing." In combination with a land or pond system, a trickling filter can do an excellent job of treatment with a minimal amount of operation and maintenance problems.

On-Site Systems

On-site systems can work very well in many of the rural areas on Tribal lands. The most common on-site system is a septic tank and drainfield. This is a large concrete or plastic box that is usually located close to each house or building. Wastewater flows into the tank and is partially digested by biological action. The remaining effluent passes to a drain field to be dispersed in the ground. This type of system usually has no mechanical parts and if operating properly only requires periodic pumping of the solids from the tank. The pumped material must be disposed of in an acceptable manner such as in a local treatment plant. Septic tanks can also be used with sand filters and ponds if the soil conditions do not allow for drain fields. Also, in drier climates the effluent can be passed through a mound with grass and plants growing on it to evaporate and transpire the water into the air.

Appendix A Glossary

APPENDIX A GLOSSARY

Advanced Treatment-Any treatment of sewage that goes beyond the secondary or biological water treatment stage and includes the removal of nutrients such as phosphorus and nitrogen and a high percentage of suspended solids.

Allowable Costs-The construction costs for wastewater treatment works that can be paid for by EPA grants.

Capital Costs-Total cost of planning, designing, and completing construction of a wastewater treatment facility.

Categorical Exclusion--Exemption from the need to prepare an environmental impact statement based on meeting certain criteria.

Certification/Certify--Documentation signed by the responsible party that specific requirements or standards have been met.

Close-out-Signifies the end of the Indian Set-Aside Grant Process. It occurs after audit, if needed, and after EPA has made a final determination that all grant requirements have been satisfied.

Collection System--Pipes used to collect and carry wastewater from an individual source to an interceptor sewer that will convey the wastewater to a treatment facility.

Collector Sewers--The system and pipes, force mains, lift stations, etc. that carry wastewater to the interceptor sewer. In general, collectors are the smaller lines that form the network in each sub-basin.

Combined Sewer Overflow--A combined sewer system is one that carries both sewage and stormwater runoff. Normally, its entire flow goes to a waste treatment plant, but during a heavy storm, the storm water volume may be so great as to cause overflows. When this happens untreated mixtures of stormwater and sewage may flow into receiving water.

Community System--Wastewater treatment facility that collects and treats wastewater for an entire community.

Construction Grants--Funding assistance available for construction of wastewater treatment facilities/systems.

Delegation/Full Delegation--Transfer of authority or responsibility for program management, including decision making regarding compliance with program requirements.

Emergency Operations Program--This component of the treatment plant's Plan of Operation outlines operational procedures to be utilized during emergency conditions such as power outage, high flow (storm) event, chlorine leakage, etc.

Enforceable requirements--Permitted effluent limits or other requirements that are subject to penalties and other legal (enforcement) actions.

Eligible For Funding--Project costs that an Indian Set-Aside grant can pay for, if they are reasonable and necessary, are those costs that are eligible for funding. Project components eligible for funding include intercepting sewers, wastewater treatment facilities (conventional or alternative) and infiltration/inflow correction, collector sewers, major sewer system rehabilitation, and correction of combined sewer overflow. A detailed listing of what costs EPA considers eligible for various parts of a wastewater project is available from EPA.

Existing Needs--For the Indian Set-Aside Program, existing needs includes the capacity to serve current housing and housing for which public funding is committed.

Fundable Range--That portion of the National Indian Project Priority List that can be funded based on the total dollars available to implement the program in a given year.

House Connections--Pipes that connect individual homes to the main sewer pipe called an interceptor. These pipes or "collectors" transport sewage to a collector that in turn transports the sewage to the facility where it is to be treated.

Indian Program Coordinator--A person in each EPA Region designated to coordinate all Indian related activities for that Region. This person often has regulatory responsibilities and acts as a liaison between federal workers and Indian Tribes.

Indian Reservation--All land within the limits of any Indian reservation under the jurisdiction of the U.S. Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation.

Indian Tribe--Any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian Reservation.

Infiltration/Inflow--Infiltration is water that indirectly enters the sewer system through means such as defective or cracked pipes. Inflow is water that directly enters the sewer system from sources such as downspouts, field drains, foundation drains, or surface runoff.

Influent--The wastewater entering a sewage treatment facility.

Interceptor Sewers--Sewer lines that, in a combined system, transmit the sewage to the treatment plant. In a storm, they allow some of the sewage to flow directly into a receiving stream, thus preventing an overload by a sudden surge of water into the sewers. They are also used in separate systems to collect the flows from main and trunk sewers (collector sewers) and carry them to treatment points.

Lagoon--A shallow pond where sunlight, bacterial action, and oxygen work to purify wastewater.

Land Treatment--The use of land to reduce the amount of conventional pollutants in wastewater by spreading it on the land under controlled conditions.

Mechanical Plants--A structure constructed to treat wastewater prior to discharge to the environment. The treatment is accomplished by subjecting the wastewater to a combination of physical, chemical, and/or biological processes which reduce the concentration of contaminants in the wastewater.

National Indian Project Priority List--A list of proposed projects, ranked based on public health, water quality, and existing treatment needs. It is the basis for Indian set-aside funding decisions.

National Pollutant Discharge Elimination System (NPDES)--A provision of the Clean Water Act which prohibits discharge of pollutants into waters of the United States from point sources unless a permit is issued by EPA, a State, or (where delegated) a Tribal government on an Indian reservation.

Need--A cost estimate for constructing a community or individual wastewater treatment facility to correct a public health or water quality problem.

Obligate--To commit funds to a project.

On-Site System--A self-contained system which provides both treatment and disposal of wastewater on an individual lot.

Operation/Maintenance (O&M)--Actions taken after construction to assure that facilities constructed to treat waste water will be properly operated, maintained, and managed to achieve efficiency levels and prescribed effluent limitations in an optimum manner.

Primary Treatment--First steps in wastewater treatment; screens and sedimentation tanks are used to remove most materials that floats or will settle. Primary treatment results in the removal of about 30 percent of carbonaceous biochemical oxygen demand from domestic sewage.

Project Performance Standards--The performance and operation requirements applicable to a project including the enforceable requirements of the Act and the specification which the project is planned and designed to meet.

Replacement--Expenditures for obtaining and installing equipment, accessories, or appurtenances during the useful life of the treatment works necessary to maintain the capacity and performance for which the treatment works are designed and constructed. Costs associated with such activities are not grant fundable, except that if an innovative or alternative wastewater treatment system fails, replacement costs are grant-fundable.

Reserve Capacity.-The collection or treatment facility portion that is larger than needed to serve existing needs.

Secondary Treatment--The second step in most publicly owned waste treatment systems in which bacteria consume the organic parts of the water. It is accompanied by bringing together waste, bacteria, and oxygen in, for example, lagoons, trickling filters, or in the activated sludge process. This treatment removes floating and settleable solids and about 90% of the oxygen-demanding substances and suspended solids. Disinfection is the final stage of secondary treatment.

Septic Tank--An underground storage tank for wastes from homes having no sewer line to a treatment plant. The waste goes directly from the home to the tank, where the organic waste is decomposed by bacteria and the sludge settles to the bottom. The effluent flows out of the tank into the ground through drains; the sludge is pumped out periodically.

Septic System--Includes one or several septic tanks (see above) and their drainage of the effluent from the tanks to a drain field or some other receiving body.

Set-Aside-Reservation of funds of one-half of one percent of the construction grant appropriation in FY 87 through FY 90 to make grants for the development of wastewater treatment management plans and the construction of sewage treatment works to serve Indian Tribes (this set-aside occurs prior to allotment to the States).

Sewer System Rehabilitation--To repair existing sewer systems to reduce I/I and/or other problems.

Sole-Source Aquifer-An aquifer that is so designated by the Administrator in accordance with Section 1424 of the Safe Drinking Water Act.

Subsurface Discharge--Nonpoint discharge; not discharged into an open body of water.

Surface Water Discharge-Direct discharge to a body of fresh water.

Wastewater Treatment Facilities (Conventional or Alternative)--A facility containing a series of tanks, screens, filters and other processes by which pollutants are removed from the water.

Appendix B List of EPA Contacts

EPA CONSTRUCTION GRANTS PROGRAM MANAGERS

Mr. Edward McSweeney C.G. Program Manager USEPA, Region I John F. Kennedy Federal Building Boston, MA 02203 (617) 565-3560

Mr. James DeLaura (Caribbean) C.G. Program Manager USEPA, Region II 26 Federal Plaza New York, NY 10278 (212) 264-0217

Mr. Bruce Kiselica (New Jersey) C.G. Program Manager USEPA, Region II 26 Federal Plaza New York, NY 10278 (212) 264-5692

Mr. Dan Forger (New York) C.G. Program Manager USEPA, Region II 26 Federal Plaza New York, NY 10278 (212) 264-0959

Mr. William Bulman C.G. Program Manager USEPA, Region III 841 Chestnut Street Philadelphia, PA 19107 (215) 597-9460

Mr. Russell Wright C.G. Program Manager USEPA, Region IV 345 Courtland Street, N.E. Atlanta, GA 30365 (404) 257-2207 Mr. Todd Cayer C.G. Program Manager USEPA, Region V 230 Dearborn Street Chicago, IL 60604 (312) 353-2121

Mr. Richard Hoppers C.G. Program Manager USEPA, Region VI 1445 Ross Avenue Suite 1200 Dallas, TX 75202 (214) 655-7110

Mr. Thomas Carter C.G. Program Manager USEPA, Region VII 726 Minnesota Avenue Kansas City, KS 66101 (913) 236-2813

Mr. Richard Long C.G. Program Manager USEPA, Region VIII 1 Denver Place 999 18th St., #1300 Denver, CO 80202 (303) 293-1563

Mr. John Ong C.G. Program Manager USEPA, Region IX 215 Fremont Street San Francisco, CA 94105 (415) 974-8095

Ms. Chris Noah-Nichols C.G. Program Manager USEPA, Region X, M/S 429 1200 Sixth Avenue Seattle, WA 98101 (206) 442-1983

EPA INDIAN COORDINATORS

Barbara McAllister (acting) Indian Coordinator EPA Region I (PPG-2300) J.F.K. Federal Bldg. Boston, MA 02203 617-565-3395 FTS-8-835-3395

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Indian Coordinator
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New York, NY 10278
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Michael Bronowski Indian Coordinator EPA Region VII 726 Minnesota Avenue Kansas City, KS 66101 913-236-2823 FTS-8-757-2823

Roccena Lawatch Indian Coordinator EPA Region IX (E-4) 215 Fremont Street San Francisco, CA 94105 415-974-8323 FTS-8-454-8323

Martin D. Topper, Ph.D. National Indian Program Coordinator U.S. EPA 401 M St. SW Washington, DC 20460 202-382-7063 FTS-8-382-7063

Appendix C Rural Community Assistance Program Contacts

RURAL COMMUNITY ASSISTANCE PROGRAMS (RCAP) LIST OF CONTACTS

Rural Community Assistance Corporation (Western RCAP) 2125 19th Street Suite 203 Sacramento, CA 95818 Contact: Beth Ytell (916) 447-2854

Community Resources Group (Southern RCAP) 2705 Chapman Road Springdale, AR 72764 Contact: John Squires (501) 756-2900

Great Lakes Rural Network c/o WSOS Community Action Agency P.O. Box 568 Freemont, OH 43420 Contact: Orville Burch (419) 334-8911

Midwest Assistance Program P.O. Box 81 New Prague, MN 56071 Contact: Ken Brazelius (612) 758-4334

Rural Housing Improvement (New England RCAP) P.O. Box 370 Winchendon, MA 01475 Contact: Laura Paradise (617) 297-1376

Southeast Rural Community Assistance Program Virginia Water Project P.O. Box 2868 Roanoke, VA 24001 Contact: Jackson Hall (703) 345-6781

Appendix D Priority System Scoring Sheets

National Indian Project Priority System

Scoring Sheets

(For EPA Use Only)

Name of Tribe:	
Date Received:	· · · · · · · · · · · · · · · · · · ·
Fiscal Year:	
Existing Population Adequately Served:	
Existing Population Needing to be	
Served by the Project:	
Project Cost Estimate:	<u> </u>
Score:	
Water Quality	
Public Health	
Preventive Measures	
Existing Level of Treatment	
Total	

NATIONAL INDIAN PROJECT PRIORITY SYSTEM SCORING SHEETS

DIRECTIONS FOR SCORING EACH PROJECT

This Scoring Sheet is a guide for the EPA Regions to use in assigning scores to requests for priority received from eligible Indian Tribes and Alaska Native Villages. The scoring sheets provide examples to score responses to the information requested in the Indian Set-Aside Program Guidelines and Requirements. EPA understands that the circumstances for Indian projects vary greatly from one Tribal area to the next; therefore, this system was designed to allow some flexibility within each section based on the professional judgment and experience of EPA Regional staff in consultation with the Indian Health Service (IHS).

Review each request and the supporting documentation provided to define the extent of the problem. If a Tribe has more than one project, each project requires a separate request submitted for priority and must be scored separately.

In applying the following measures to each request, consult with your IHS contact. IHS may be able to provide additional data on the Tribe's wastewater problem or answer specific questions about the project.

If in any of the sections the measures do not apply to the specific project, data are not available or do not adequately represent the problem, circle the appropriate score for that section, based on the best professional judgment of EPA or IHS. In all cases, explain in the COMMENT block following each section the circumstances and the rationale for the score that was assigned.

The scoring sheets, when forwarded to EPA Headquarters, should be accompanied by the Tribe's summary description of the water quality and public health need. EPA Headquarters will review the scoring for National consistency and create the project priority list.

The scoring sheets have four sections with the following maximum score per section:

				Points
• WA	TER QUALITY		1	36
- 3	Surface Water	36		
· · · · · · · · · · · · · · · · · · ·	Ground Water	36		
• PUE	BLIC HEALTH			54
• PRE	EVENTIVE MEAS	URES		6 ,
• EXI	STING TREATME	NT		10
TOTA!	•			106

The water quality and public health sections use a variety of measures, including:

- · Use of receiving water
- · Degree of degradation or public health hazard
- Duration of degradation or public health hazard
- · Extent (area or volume) of degradation or public health hazard
- Physical limitations

In addition, both sections include a weighting factor based on strength of the information or best professional judgment provided in the application for priority.

A separately scored population factor is not included in the scoring sheets. Population information should be supplied on the cover sheet along with the project cost estimate. When used in scoring, population is expressed in terms of ratios so that no bias is introduced toward any size community. Requests for population information should be limited to:

- A. Existing population, adequately served
- B. Existing population, needing to be served by the project.

WATER QUALITY SECTION

(Select scoring option 1 or 2 depending on the scope of the information available. Use option 1 if possible. If information needed for option 1 is not available, use option 2)

Surface Water (Option 1)	
Formula: [Use x (degradation + duration + extent + improvement) Surface Water Score (round to nearest whole number)	x Information]/3 = Total
Where:	
Use =	
Most important current or recent historical use of the receiving wat the project:	ers to be addressed by
Fish and wildlife	3
Agriculture/ aquaculture	2
 Recreation (for body contact-see Public Health) 	
COMMENTS:	
Degradation =	
Current degree of degradation (e.g., change in pounds of fish or wideling the degradation of the control of the	ld rice harvested,
Use is very limited (< 1/3 remaining)	3
 Use is substantially affected (1/3 - 2/3 remaining) 	2
 Use is predominantly still supported (> 2/3 remaining) 	1
COMMENTS:	

Ouration =	
Duration of degradation (e.g., periods of wet-weather opulation increases):	r flows, low water levels, seaso
greater than 2/3 of the year	3
• 2/3 to 1/3 of the year	2
• less than 1/3 of the year	
COMMENTS:	
Extent =	
Extent of area/volume degraded (e.g., stream miles,	surface acres, gallons per day)
• greater than 2/3	3
• 2/3 to 1/3	2
• less than 1/3	n de la companya de La companya de la co
COMMENTS:	
Information =	
Strength of information or best professional judgmer	nt (BPJ) by EPA or IHS staff:
• Data from site-specific studies/reports, pe	ermit violations, 3
disease outbreaks, or strong BPJ including	ng on-site visits.

• Extrapolated/derived from general information, moderate 2 BPJ based on pnotos, logs, samples, experience with other similar situations.

Anecdotes, impressions, lay description, limited BPJ

based on interviews with laypersons.

COMMENTS:			
Improvements =			
EPA's assessment of amount of improvement to	water quality as	a result of th	is project:
EPA's assessment of amount of improvement to • Significant	water quality as	a result of th	is project:
 Significant 	water quality as		is project:
• Significant	water quality as	3	is project:
SignificantModerate	water quality as	3	is project:
SignificantModerateMinimal	water quality as	3	is project:
SignificantModerateMinimal	water quality as	3	is project:
SignificantModerateMinimal	water quality as	3	is project:
SignificantModerateMinimal	water quality as	3	is project:

TOTAL SURFACE WATER SCORE (Option 1) (Not to exceed 36 points; enter on page 10)

Most important current or recent historical use of receiving waters to be addressed to project: • Fish and wildlife • Agriculture/ aquaculture • Recreation (for body contact-see Public Health) COMMENTS: Level of Treatment = Existing level of treatment discharge (Note: If several levels of treatment exist, we score for each according to the proportion of the population served by each systel divide the population served by septic tanks by the total population and multiply be score for primary treatment; repeat for each level of treatment and add the results • Raw 3	Water (Option 2) WHERE THE AVAILABLE INFORMATION DOES N Output Discussion of the second se	
Fish and wildlife Agriculture/ aquaculture Recreation (for body contact-see Public Heaith) COMMENTS: Level of Treatment = Existing level of treatment discharge (Note: If several levels of treatment exist, we score for each according to the proportion of the population served by each systely divide the population served by septic tanks by the total population and multiply be score for primary treatment; repeat for each level of treatment and add the results Raw Raw 3	[Use x (level of treatment + receiving water + duration)]/3 = Total Surface Water Score (round to nearest	whole number)
Most important current or recent historical use of receiving waters to be addressed by project: • Fish and wildlife • Agriculture/ aquaculture • Recreation (for body contact-see Public Heaith) COMMENTS: Level of Treatment = Existing level of treatment discharge (Note: If several levels of treatment exist, we score for each according to the proportion of the population served by each system divide the population served by septic tanks by the total population and multiply be score for primary treatment; repeat for each level of treatment and add the results • Raw 3		
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• Fish and wildlife • Agriculture/ aquaculture • Recreation (for body contact-see Public Heaith) COMMENTS: Level of Treatment = Existing level of treatment discharge (Note: If several levels of treatment exist, we score for each according to the proportion of the population served by each system divide the population served by septic tanks by the total population and multiply be score for primary treatment; repeat for each level of treatment and add the results • Raw 3		
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Recreation (for body contact-see Public Heaith) Level of Treatment = Existing level of treatment discharge (Note: If several levels of treatment exist, we score for each according to the proportion of the population served by each system divide the population served by septic tanks by the total population and multiply be score for primary treatment; repeat for each level of treatment and add the results Raw 3		2
Level of Treatment = Existing level of treatment discharge (Note: If several levels of treatment exist, we score for each according to the proportion of the population served by each system divide the population served by septic tanks by the total population and multiply be score for primary treatment; repeat for each level of treatment and add the results • Raw 3	Recreation (for body contact-see Public Health)	1
Level of Treatment = Existing level of treatment discharge (Note: If several levels of treatment exist, we score for each according to the proportion of the population served by each system divide the population served by septic tanks by the total population and multiply be score for primary treatment; repeat for each level of treatment and add the results • Raw		
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Existing level of treatment discharge (Note: If several levels of treatment exist, we score for each according to the proportion of the population served by each system divide the population served by septic tanks by the total population and multiply be score for primary treatment; repeat for each level of treatment and add the results • Raw	of Treatment =	
• Raw	g level of treatment discharge (Note: If several levels for each according to the proportion of the population	nulation and multiply by
• Raw Dimens (including sentic tanks/drainfields) 2	Davis	3
. Drimary fill Hilling action (director)	 Haw Primary (including septic tanks/drainfields) 	2
Secondary		1
• Gecondary	- Secondary	
COMMENTS:		

ja.

Receiving Waters =	
Freshwater, estuaries, wetlandsDitches, farmlandOcean	3 2 1
COMMENTS:	
Duration =	
Number of the last 12 months during which the use was affected:	
More than 6 months3-6 monthsFewer than 3 months	3 2 1
COMMENTS:	
Information =	
Strength of information or best professional judgment (BPJ) by EP	'A or IHS staff
 Data from site-specific studies/reports, permit violations, disease outbreaks, or strong BPJ including on-site visits 	3
 Extrapolated/derived from general information, moderat BPJ based on photos, logs, samples experience with other similar situations. 	e 2

1

 Anecdotes, impressions, lay description limited BPJ based on interviews with laypersons.

COMMENTS:				
mprovements =				
			a a requit of thi	c pro
 Significant 	ount of improvement	to water quality a	3	s pro
EPA's assessment of amSignificantModerateMinimal	ount of improvement	to water quality a		s prc
SignificantModerate	ount of improvement	to water quality a	3	s pro
SignificantModerateMinimal	ount of improvement	to water quality a	3	s pro
SignificantModerateMinimal	ount of improvement	to water quality a	3	s prc

TOTAL SURFACE WATER SCORE (Option 2) _____ (not to exceed 36 points; enter on page 10)

Formula: [(physical limitations + extent) x Information] x 2 = Ground	Water Score
Where:	
Physical limitations =	
Physical limitations causing degradation due to current subsurface of	lisposal:
 High water table most of the year or impermeable ground (e.g., rock, clay, permafrost) or excessively drained (e.g., large cobbles, fractured limestone). 	3
 Seasonally high water or moderately poor (slow or fast) drainage. 	2
 Occasional flooding or patchy problem areas. 	1
Extent =	
Extent of condition (e.g., % of population affected by poor drainage	or well problems
greater than 30%5 - 30%less than 5%	3 2 1
COMMENTS:	

Ground Water (Includes well water)

Information =

For strength of information or best professional judgment (BPJ) by EPA or IHS staff:

- Data from site-specific studies/reports, permit violations, disease outbreaks, or strong BPJ including on-site visits.
- Extrapolated/derived from general information, moderate 2 BPJ based on photos, logs, samples experience with other, similar situations.
- Anecdotes, impressions, lay description limited BPJ based on interviews with laypersons.

COMMENTS:	

TOTAL GROUNDWATER SCORE (Not to exceed 36 points)

TOTAL SURFACE WATER SCORE (Option 1 or 2, from page 5 or 8, not to exceed 36 points)

TOTAL WATER QUALITY SCORE (Not to exceed 36 points; enter on cover page)

PUBLIC HEALTH SECTION

Formula: [Hazard x (extent + duration) x information] = Public Health	COLE
Where:	
Hazard =	•
Most important current or recent public health hazard to be addresse	ed by the project:
Domestic drinking water or food production	3
 High risk of body contact/consumption, (e.g., swimming, hunting/fishing) 	2
 Low risk of body contact/consumption due to areas of ponding or surfacing of waste 	1
COMMENTS:	
Duration =	
Number of months a public health hazard has existed during the pa	ast 12 months:
 Greater than 3 months 1 - 3 months Less than 1 month 	3 2 1
COMMENTS:	

Extent =	
Extent of area/volume or percentage of population affected:	
 Greater than 10% 1 to 10% Less than 1%	3 2
COMMENTS:	
Information =	
For strength of information or best professional judgment (BPJ) by E	PA or IHS staff
 Data from site-specific studies/reports, permit violations, disease outbreaks, or strong BPJ including on-site visits. 	3
 Extrapolated/derived from general information, moderate BPJ based on photos, logs, samples experience with other similar situations. 	2 r
 Anecdotes, impressions, lay description limited BPJ based on interviews with laypersons. 	1.
COMMENTS:	

TOTAL PUBLIC HEALTH SCORE (Not to exceed 54 points; enter on cover page)

WATERBODY PROTECTION & PUBLIC HEALTH MEASURES TAKEN BY THE TRIBE:

Score up to 6 points considering the strength and effectiveness of the measures. Examples of such measures include:

- · Construction/operation of interim facilities
- Building moratorium
- Stop-gap changes in operation and maintenance
- Water conservation
- Waterbody use restrictions

	SCORE FOR PREVENTIVE MEASURES (Not to exceed 6 points; enter on cover page)
COMMENTS:	

EXISTING LEVEL OF TREATMENT

Score up to 10 points depending on the current level of treatment. If poor operation and maintenance of primary or secondary facilities contribute to the problem, subtract up to 3 points. If several treatment systems are in use, weight the score for each according to the proportion of the population served by each system (i.e., divide population served by septic tanks by the total population and multiply by the score for primary treatment minus any penalty imposed for poor O&M (e.g., 5 minus 3); repeat for each level of treatment and add the results.)

	eatment ary only (inc	cluding septic tanks/drain fields)	10 5
• Seco			3
COMMENTS:			

SCORE FOR EXISTING TREATMENT (Not to exceed 10 points, enter on cover page)

Appendix E Additional Federal Requirements

APPENDIX E OTHER FEDERAL REQUIREMENTS

The Clean Water Act specifies that all Federally funded projects must comply with certain Federal laws. These are described in the list that follows. Your EPA Regional office can explain further how these may affect your project.

Civil Rights Act--Applicant cannot discriminate on the grounds of race, color, or national origin.

Clean Air Act-All federally funded projects must conform to approved State Air Quality Implementation Plans.

Coastal Zone Management Act--Requires that all federal activities be consistent with approved State coastal zone management programs to the maximum extent possible.

Endangered Species Act--Projects must avoid disrupting threatened or endangered species or their habitats, unless an exception is granted under the Act.

Farmland Protection Policy Act--Requires that facilities be located on agricultural land only when necessary to serve existing residential users.

Fish and Wildlife Coordination Act--Actions that will control or modify any natural streams or other body of water must be undertaken so as to protect fish and wildlife resources and their habitats.

Flood Disaster Protection Act--Restricts development in floodplains.

Hatch Act--Places some restrictions on political activity of government employees.

National Environmental Policy Act--Requires the preparation and review of an environmental impact statement before any major federal action is undertaken which will significantly affect environmental quality.

National Historic Preservation Act--Requires procedures for consultation and commentary by the Advisory Council on Historic Preservation on EPA grant actions that will affect a property listed or eligible for listing on the National Register of Historic Places.

Resource Conservation and Recovery Act--Requires the control of solid wastes, including toxic and hazardous materials.

Rivers and Harbors Act--Permits from the U.S. Army Corps of Engineers are required for any dredging, filling, or obstruction of navigable waters.

Safe Drinking Water Act--Requires that the project adequately protect sources of drinking water from contamination.

Uniform Relocation Assistance and Real Property Acquisition Act--Requires that owners of real property and/or individuals to be displaced by federal or federally-assisted projects be treated fairly, consistently, and equitably so that such persons will not suffer disportionate injuries as a result of projects designed for the benefit of the public as a whole.

Wild and Scenic Rivers Act--Project may not directly and adversely affect any wild, scenic, or recreational river.